## **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018841 Address: 333 Burma Road **Date Inspected:** 13-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Wang Jie **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

#### **ULTRASONIC TESTING**

ZPMC NWIT: 07335

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (UT) report on this date. The members are identified as SEG3020AP. The weld designations are as follows:

SEG3020AP-003, 004, 005

#### MAGNETIC PARTICLE TESTING

ZPMC NWIT: 07342

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (MT) report on this

# WELDING INSPECTION REPORT

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date. The members are identified as SEG3020AP. The weld designations are as follows:

SEG3020AP-003, 004, 005

This QA Inspector randomly observed the following work in progress.

**BAY #14** 

#### **OBG13 EAST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 049861 performing the Shielded Metal Arc Welding process on weld 116 located at PCMK SEG3007. ZPMC QC Mr. Zhong Yong Gang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 200113 performing the Shielded Metal Arc Welding process on weld 117 located at PCMK SEG3007. ZPMC QC Mr. Zhong Yong Gang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 208035 performing the Flux Cored Arc Welding process on weld 120 located at PCMK SEG3007B. ZPMC QC Mr. Zhong Yong Gang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2132.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 037705 performing the Flux Cored Arc Welding process on weld 033 located at PCMK SEG3007F. ZPMC QC Mr. Zhong Yong Gang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-u4b-f.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068494 performing the Flux Cored Arc Welding process on weld 019 located at PCMK SEG3007G. ZPMC QC Mr. Zhong Yong Gang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-u4b-f.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as FB3124. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Wang Xu was present to monitor the heat straightening process. Weld number identified as SEG3007J-032. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-9836.

#### **OBG 14 WEST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 045175 performing the Flux Cored Arc Welding process on weld 013 located at PCMK SEG3020AZ. ABF QA Mr. Shen was monitoring this welding operation. The welding variables recorded by QA appeared to comply with WPS-B-T-2231-U2-F.

**OBG 14 EAST** 

# WELDING INSPECTION REPORT

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This Quality Assurance (QA) Inspector observed ZPMC personnel performing Ultrasonic testing for the splice weld between AP3005 and AP3006. Weld number identified as SEG3019AP-005.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Patterson, Rodney	QA Reviewer